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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,341	12/03/2003	Philip C. Georgeau	CHE20 P-304A	9027
277 7590 09/06/2007 PRICE HENEVELD COOPER DEWITT & LITTON, LLP 695 KENMOOR, S.E. P O BOX 2567 GRAND RAPIDS, MI 49501			EXAMINER CHAPMAN, JEANETTE E	
			ART UNIT 3635	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/726,341

Applicant(s)

GEORGEAU ET AL.

Examiner

Chapman E. Jeanette

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. On page 4, paragraph 13 and in figure 2, applicant discloses the first or lower side includes the fleece material. However now the independent claim recites a membrane with a lower or first side free of fleece. This text is not in the specification or the originally filed disclosure.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Georgeau et al (6579924)

Venable discloses a roof structure for covering a roof substrate comprising:

- A roof substrate 10 having an upper surface

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- A waterproof membrane of EPDM rubber 18 having an upper side and a layer of fleece material 22 disposed on the lower side of the membrane
- A polymer adhesive 15 disposed on the lower side
- The adhesive is disposed within the fleece material and contacts the upper surface of the roof substrate and thereby bonds the membrane to the roof substrate capable of defining a portion of a low slope roof of a building structure define a portion; see figure 3
- A metal decking or a fluted steel deck having a plurality of elongated upper deck surfaces
- A layer of insulation 14 on the deck 12 forming the roof substrate
- The foam 14 may be considered substantially rigid as insulating foam may be constructed to be "substantially" rigid
- The water proof membrane in contact with the upper surface of the roof substrate

Venable lacks the non-volatile adhesive comprising a silyl-terminated polymer and the silyl-terminated polymer comprises a silyl- terminated polyether. Georgeau et al discloses such an adhesive used to securing roofing membranes on pitched roofs. See column 1, line 10-17. See column 3, line 57 thru column 4, line 15.

In view of the above, it would have been obvious to modify Venable to include the recited adhesive in order to provide shorter curing times which is also non-shrinking as taught by Georgeau et al.

The thickness of the membrane and the fleece or matting have been considered a matter of choice. Further, the measurement values for the bond strength and the viscosity of the adhesive are also measurement values that have been considered a matter of choice. One of ordinary skill in the art would have appreciated making the fleece/membrane, the bond strength and the viscosity of any measurement values suitable for the intended use function and purpose of the roof structure. The recited measurement values are very much within the scope of the invention to Venable. Further the significance and relevancy of the specific values lacks criticality, significance and relevancy to the overall claimed/disclosed invention. Finding the optimal values providing the intended function for the structure requires mere routine experimentation..

Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Gerogeau et al as applied to claim 1 and further in view of Naipawer, III. Venable discloses a roofing membrane of EPDM but lacks the alternative material of PVC. Naipawer discloses a roofing membrane of EPDM or PVS. It would have been obvious to one of ordinary skill to employ the alternative material of PVC since it has been shown to be a suitable material for roofing membranes using adhesives.

Claims 5-14, 17-22, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Gerogeau et al as applied to claim 1 and further in view of Van Wagoner (VW). VW discloses a low sloping roof 46 shown in figure 3. VW also discloses a membrane 48 of EPDM rubber. In view of the above, it would have been

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obvious to apply the roofing membrane of Venable to sloping roof structures in order to impart the membranes to different roof configurations as taught by the VW.

For the other limitations see above rejections.

It is clear that if one used the moisture cured adhesive to bond the membrane to the foam substrate then one would also use the adhesive to bond the foam to the metal decking and to bond the foam to the fiberglass gypsum and to bond the fiberglass gypsum to the waterproof membrane in order to preserve the integrity of the roof deck. Venable does not show or disclose any mechanical fasteners.

Claims 15-16, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Gerogeau et al and VW and further in view of Beck (4498267). . Beck discloses an upper layer of water proof material and an underlaying of fiberglass reinforced gypsum. See the abstract. In view of the above it would have been obvious to one of ordinary skill to include the fiberglass reinforced gypsum under the water proof membrane of Venable in order to optimize the strength while minimizing the weight and cost of the roofing structure as taught by Beck

It is clear that if one used the moisture cured adhesive to bond the membrane to the foam substrate then one would also use the adhesive to bond the foam to the metal decking and to bond the foam to the fiberglass gypsum and to bond the fiberglass gypsum to the waterproof membrane in order to preserve the integrity of the roof deck. Venable does not show or disclose any mechanical fasteners.

Claims 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable (4996812) in view of Gerogeau et al and Van Wagoner (VW) as applied to

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claim 21 and further in view of Naipawer II. The base reference has been considered as described above and the secondary references have been applied to the base reference in the same manner as described above.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

The declarations and affidavits filed 6/25/07 are merely citations applicant considers as prior art. These references do not negate the previous and/or present references applied against the claims. They merely give a disclosure of what is done in the art of materials and roofing substrate.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chapman E. Jeanette whose telephone number is 571-272-6841. The examiner can normally be reached on Mon.-thursday, 8:30-6:00, every fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
JEANETTE CHAPMAN  
PRIMARY EXAMINER  
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